Earthen Road and Runway Stabilization (ERRS) Study RFI Synopsis

As part of its market research, the National Defense University (NDU) is issuing this RFI to determine the level of interest from qualified contractors that are capable of providing an Earthen Road and Runway Stabilization system. This RFI is part of a study to recommend a technology for field evaluation in the Pacific Theatre as described in the Response Requirements section. The Government intends to use the responses to this RFI for information and planning purposes to inform an Analysis of Alternatives (AOA) study. This RFI describes only the currently contemplated possible scope of services and may vary from the work scope included in a Request for Quotation (RFQ).

FAR Part 10 requires the Government to conduct market research before developing new requirements documents for an acquisition. Results of market research are used to determine whether qualified sources exist and whether commercial items or non-developmental items are available to meet the requirement. One of the ways the Government conducts market research is to issue a Request for Information (RFI). This RFI provides a broad statement of need, briefly describes the Government's intentions regarding program approach, and identifies key organizations. This RFI is subject to the provisions of FAR 52.215-3 and is issued solely for information and planning purposes. This RFI does not constitute a Request for Proposal (RFP) or a commitment to issue an RFP. The Government does not intend to award a contract on the basis of this solicitation or to pay for any information, or otherwise reimburse responders for any costs associated with their respective submissions in response to this RFI. Any response will be treated as information only and shall not be used as a proposal.

All information received in response to this RFI that is marked "Proprietary" will be protected and handled accordingly. Interested parties are responsible for adequately marking proprietary or competition sensitive information contained in their response.

1. BACKGROUND

1.1 Earthen Road and Runway Stabilization (ERRS) Study

The ERRS study seeks to evaluate non-traditional road and runway construction methods that will result in durable Road and Runway that are resistant to tropical climate, resilient to the stresses of heavy equipment and capable of supporting military and humanitarian contingencies. The project shall be broken down into two (2) phases with a 6-8 month duration.

- Phase 1: Analysis of Alternatives: Conduct an AOA of current applicable products on the market in alternative earthen road construction. This will include information gathering, consultation, an RFI, market research, evaluation, and recommendations. Total time is 3-4 month.

- Phase 2: Potential Field Evaluation: Deploy the capability to an operational user for a 3-4 month field assessment in one or more of the Combatant Commands.

The ERRS Project shall address the following operational objective:

1) *Improve the ability of USMC to quickly improve a road or potential landing zone as a maneuver element; and*
2) *Recommend a solution with the highest probability of success in the widest variety of conditions*

1.2 Expected Benefits of Proposed Work

The purpose of ERR stabilization technologies is to reduce the logistical burdens associated with rapidly deploying durable, scalable, and cost-effective pavement construction systems in remote, tropical locations. A successful outcome will result in the identification of artificial soil stabilization materials that enhance airfield construction productivity, particularly for light/medium engineering units.

1.3 Capability Need

Department of Defense (DOD) operations in remote locations increasingly require globally responsive, operationally precise, and cost-effective support for the projection and sustainment of U.S. troops. The rapid construction or expansion of semi-prepared contingency airfields for a variety of missions is a critical component of the U.S. military capability for meeting future force projection goals. Light/medium engineering units frequently do not have the capability to rapidly construct or upgrade contingency airfields within required timelines. Moreover, U.S. partners are often ill-equipped to support and maintain existing pavement infrastructures, due to the specialized tools required in remote locations.

2. ERRS REQUIREMENTS

The contractor shall develop and demonstrate a readily transportable, low cost, energy efficient earth stabilization system that can, at a minimum, be used to construct a 415 x 415 foot parking apron for C-130 and C-17[1] aircraft, as well as being suitable for other operations. Threshold and Objective requirements are provided in the attached ERRS Technical Requirements Table (Appendix A). [2]

Respondents should complete the ERRS Technical Requirements Table and provide the following support information:

1. Operator's manual and field level maintenance manuals
2. Technical Drawings including, but not limited to, wiring diagrams, flow diagrams,
3. Training package (lesson plans, training for Engineer teams, training for US Military Testers, training aids)
4. Test & Evaluation Sustainment Package (Consumables)
5. Vendor support to Test & Evaluation
6. Operations Sustainment Package for one year (Consumables)
7. Field Support Representative (FSR), if applicable
8. 24/7 Customer Support Capability (e.g. call back support, phone, email)

3. RFI RESPONSE REQUIREMENTS

Respondents are requested to submit a Technical Capabilities Statement, Estimated Cost, a completed ERRS Requirements Table, and any additional information that pertains to the subject outlined in the RFI. The specific information sought is outlined below.

ERRS Technical Requirements Table

The contractor shall address the ability to meet and/or exceed the minimum threshold applicable to the proposed ERRS system. Vendors shall place their proposed product capability data in the 'Respondent Capabilities' section of the table. In cases where a specific requirement cannot be met or may be

[1] Standards for parking aprons are available in UFC 3-260-01: Airfield and Heliport Planning and Design; and UFC 3-260-02: Pavement Design for Airfields

[2] DoD 5000.2R C1.2.1.1. For performance, "threshold" shall mean the minimum acceptable value that, in the user's judgment, is necessary to satisfy the need. For schedule and cost, "threshold" shall mean the maximum allowable value. If performance threshold values are not achieved, program performance may be seriously degraded, and the utility of the system may become questionable. If schedule threshold values are not achieved, the program may no longer be timely. If cost threshold values are not achieved, the program may be too costly, and the affordability of the system may become questionable.

DoD 5000.2R C1.2.1.2. The objective value is the value desired by the user, and the value the Program Manager (PM) tries to obtain. The objective value represents an incremental, operationally meaningful, time-critical, and cost-effective improvement to the threshold value of each program parameter.

exceeded, the contractor shall state to what degree that requirement could be met or may be exceeded and briefly provide an explanation. Contractors are encouraged to comment on each item and should not leave items blank.

Technical Capabilities Statement
The following issues must be addressed in a Technical Capabilities Statement Response:

1. Company information to include the company size/socio-economic status, the Commercial and Government Entity (CAGE) code, and the Point of Contact (POC) information (name, email address, telephone and fax numbers).
2. Background/Corporate Experience
3. Current company contract vehicles to include available Indefinite Delivery Indefinite Quantities (IDIQ), contract ceilings, available contract ceiling room, contract numbers, and contract Point of Contacts (POC).
4. Past Performance description and references, to include POC information for each reference (not to exceed 5 pages total)
5. Program Management Approach
6. Technical approach and technical readiness levels
7. System view, concept design with derived earth stabilization levels

At the RFI response deadline, NDU intends to review ERRS contractor responses for desktop evaluation with experts in DOD. Contractors are expected to prepare for and participate in the evaluation. Preparation includes, but is not limited to, vendor evaluation prior to delivery, safety assessment report (SAR) preparation, user manuals, and technical manuals.

Description of Key Tasks:
The contractor shall provide information on the key tasks/components that would inform a future quotation on a competitive solicitation that includes requirements for ERRS.

Estimated Performance:
The contractor shall provide the estimates of performance against all parameters in Appendix A.

Validation of Capability
The contractor shall provide a one page statement validating their ability to provide one (1) ERRS system as described in their response to Appendix A.

4. RESPONSES

4.1 Response Format
Interested parties are requested to respond to this RFI announcement using MS Word limited to ten (10) pages including the filled out ERRS Requirements Technical Requirement attached. Please reference RFI-ERRS in your email.

Please be advised that all information received in response to this notice will be considered procurement sensitive and will be handled accordingly. However, any information the contractor considers to be proprietary pursuant to existing laws and regulations should be marked in accordance with FAR 2.101 and 3.104-1.

4.2 Response Deadline and Submissions

RESPONSES ARE DUE NO LATER THAN 7 JULY 2014 AT 1:00 PM EST.

Responses shall be submitted via e-mail to the contract specialist at nicholas.milillo@navy.mil. Not responding to this RFI does not preclude participation in any future RFP, if any is issued. If a solicitation is released, it will be synopsized on the Federal Business Opportunities (FedBizOpps) website at http://www.fedbizopps.gov/ and the Navy Electronic Commerce Online (NECO) website at www.neco.navy.mil. It is the responsibility of potential offerors to monitor these sites for additional information pertaining to this potential requirement.

The company shall be responsible for any costs associated with preparing responses to this RFI. The government will review RFI submissions as they are received. The government reserves the right to close this RFI upon receipt of adequate responses.

5. Questions

Questions regarding this announcement shall be submitted via email to the contract specialist at nicholas.milillo@navy.mil. Government responses to questions will be posted to NECO. Questions shall NOT contain proprietary information or classified information.

The Government does not guarantee that questions received after 26 June 2014 will be answered.

6. Summary

This is a Request for Information (RFI) **ONLY** to solicit information from industry. The information provided in the RFI is subject to change and is not binding to the U.S. Government. The DON has not made a commitment to procure any of the items discussed, and release of this RFI should not be construed as such a commitment or as authorization to incur cost for which reimbursement would be required or sought. All submissions become U.S. Government property and will not be returned.

CTNSP, NDU
12 June 2014

Appendix A: Earthen Roads and Runways Stabilization (ERRS) Technical Requirements Table

ASSUME EACH PARAMETER APPLIES TO A SINGLE PROJECT OF 100' X 100'
in the 'Respondent Capabilities' column: If your system meets the threshold or objective value, simply write "Threshold" or "Objective"
DO NOT LEAVE ITEMS BLANK
Provide additional information in the Explanation/Comments column, or in your Technical Approach
DO NOT ADJUST THE FORMAT OR ADD PARAMETERS TO THIS WORKSHEET

Parameter	Threshold (min acceptable)	Objective (desired capability)	Respondent Capabilities (threshold or objective)	Explanation/Comments
PERFORMANCE				
Soil Types	Works with sand and clay soils	Works with any kind of soil (sand, clay, gravel, volcanic, crushed coral, etc.)		
Strength	6" depth tolerates 250 psi	6" depth tolerates 400 psi		
Temperature Tolerance	Sustained temps of -32F to 140F	Sustained temps of -25F to 140F		
Petroleum Oil and Lubricant (POL) Resistance	Tolerates minor spills without degradation	Impervious to POL spills		
Erosion Resistance	Water resistant & UV resistant	Waterproof & UV resistant		
Clumping Resistance	Does not pose Foreign Object Damage (FOD) hazard to aircraft during operations	Threshold		
Compatibility with Other Stabilization Methods	Compatible with matting and mechanical systems	Compatible with matting, mechanical, and chemical systems (enzymes, polymers, resins, petroleum emulsions, lignosulfonates)		

Parameter	Threshold (min acceptable)	Objective (desired capability)	Respondent Capabilities (threshold or objective)	Explanation/Comments
Smoothness	Suitable for C-130/C-17 take-off & landing	Suitable for UAV take-off & landing		
Reparability / Resurfacing	Requires complete re-application	Reworkable Binder		
HAZMAT Risk	No HAZMAT risk when cured	No HAZMAT risk during shipping, storage, or when cured		
Storage Requirement	Storage -10 to 160F for 1 year	Threshold		
Storage Humidity Requirement	Not sensitive to humidity	Threshold		
Environmental Impact	No toxic run-off	No toxic run-off & will break down within 5 years		
CONSTRUCTION				
Generic Equipment Requirement	All available in DOD inventory	Available in underdeveloped host nations		
Application Equipment Requirements	Limited special equipment	No special equipment		
Water Quality Requirement	Can use untreated ground water	Threshold		
Temperature Tolerance	Temps of 32F to 120F	Temps of 20F to 130F		
Soil Saturation	50% - 80% soil saturation	20% - 95% soil saturation		
Rainfall Tolerance	Resume construction as soon as rain stops	Rain causes no delay during construction		
Construction & Cure Time	20,000 cubic feet in less than 3 days (no rain)	20,000 cubic feet in than 2 days (no rain)		

Parameter	Threshold (min acceptable)	Objective (desired capability)	Respondent Capabilities (threshold or objective)	Explanation/Comments
Scalability	Unlimited	Threshold		
Training of Unskilled Operator	Competent operator in less than 3 days	Competent operator in less than 2 days		
Operator Skill Level	US Army MOS 12B (Combat Engineer)	Host nation road construction worker		
Fuel Type	Diesel or JP8	JP8		
Lift Thickness	Achieve 6” in two compactible lifts	Achieve 6” in one compactible lift		
TRANSPORTABILITY				
Kit Transportability	Compatible with air, land & sea shipping	Air droppable		
Volume of Consumables	Compatible with 8ft long standard shipping container	Compatible with 463L pallet		
Volume of Consumables & Equipment	Compatible with ISO-20	Compatible with 8ft long standard shipping container		
Weight of Consumables	5% of dry mass	3% of dry mass		
Weight of Consumables & Equipment	Less than 10,000 lbs	Less than 5,000 lbs		
HAZMAT	No HAZMAT risk	Threshold		
Export Control	No export restrictions	No export restrictions		
Shelf Life	Exceeds 2 years	Exceeds 5 years		
Availability	Ship within 14 days	Ship within 5 days		
COST				

Parameter	Threshold (min acceptable)	Objective (desired capability)	Respondent Capabilities (threshold or objective)	Explanation/Comments
Cost of Complete Solution	$			
Cost of Materials	$			
Cost of Unique Equipment	$			
Cost of Labor & Training	$			
Consumables for Repairs	$			